

The Community Assessment Project

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Disparities in Birth Outcomes (SCEDDBO)

Duke University and the University of Michigan

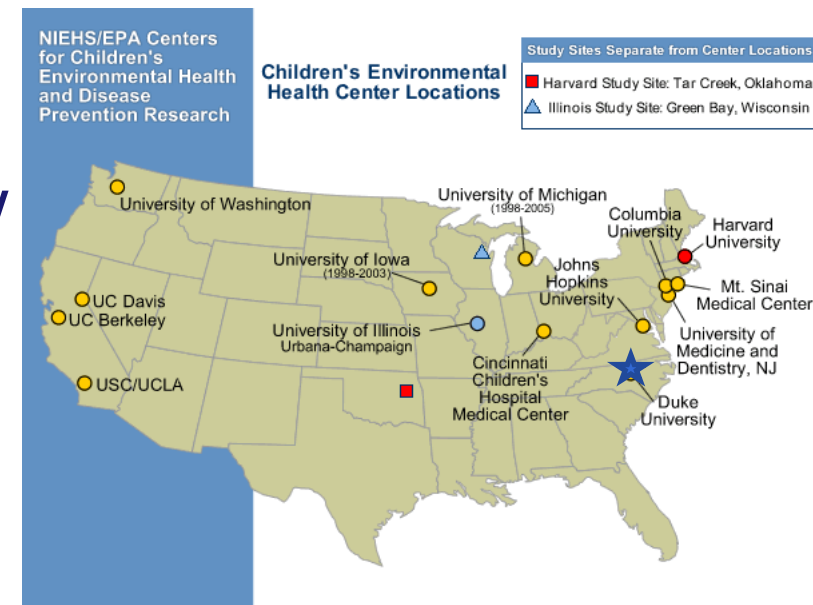
March 6, 2012

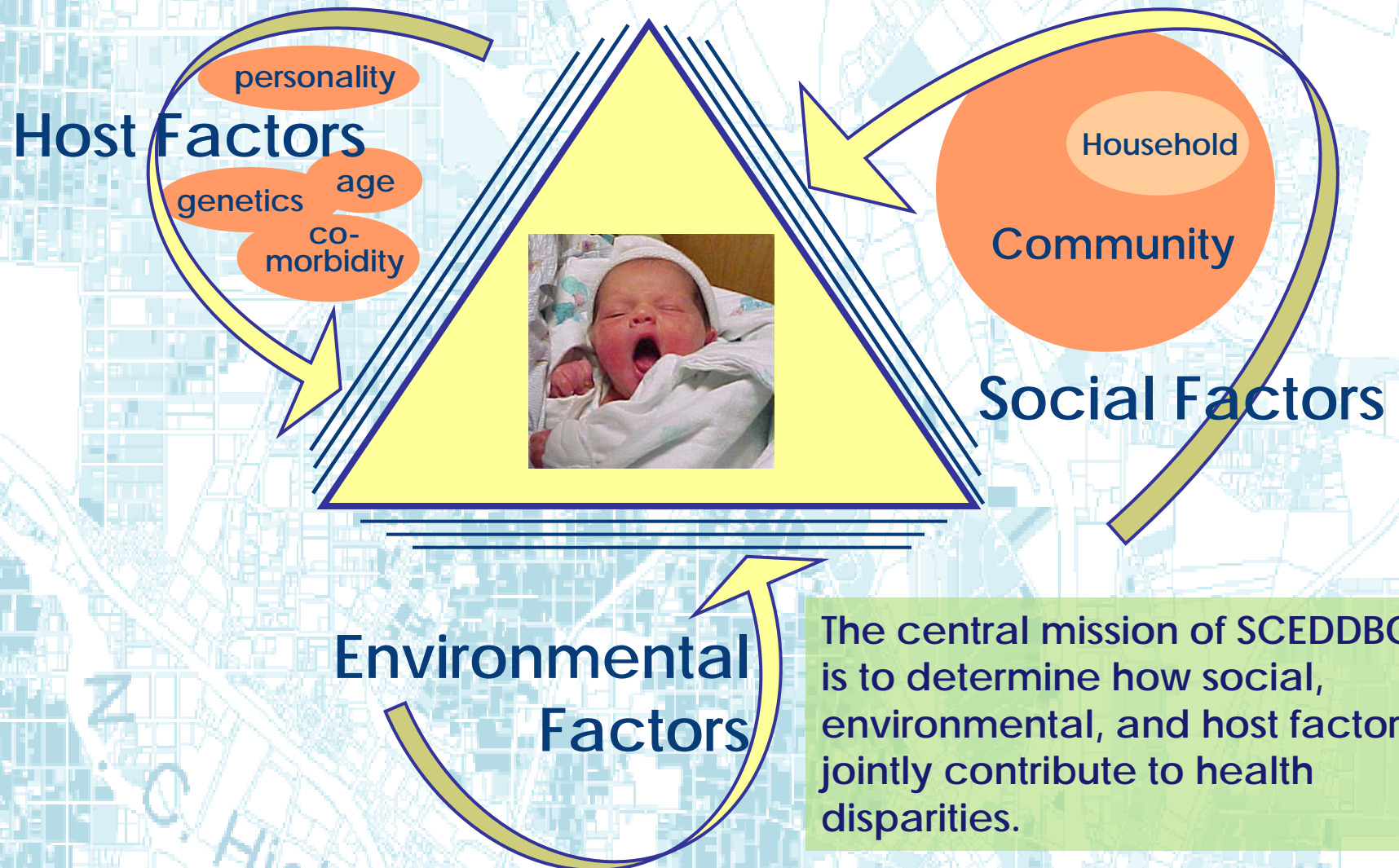


Southern Center on Environmentally-Driven Disparities in Birth Outcomes (SCEDDBO)

SCEDDBO goals:

- 1) Understand the **biological, environmental, and social vulnerabilities** that contribute to health disparities;
- 2) Incorporate **innovative statistical analysis** into children's environmental health research, with a particular emphasis on **spatial analysis**;
- 3) Serve as a **technical and educational resource** in the area of children's health and health disparities; and
- 5) **Translate** our results for community groups, government officials, clinical care, and practice.





CAP motivated by:

- 1. Pronounced health disparities in Durham**
- 2. Strong community interest in systematically assessing the built environment**



CAP aims:

- 1. Survey features of the built environment for Durham residents**
- 2. Elucidate the impact of the built environment on health outcomes**
- 3. Build relationships with community members.**

1. **Build GPS-enabled technology for systematically measuring elements of the built environment**
2. **Design and implement a field data collection protocol**
3. **Construct and validate summary indices of built environment data**
4. **Assess longitudinal change in the community**
5. **Disseminate study results to community stakeholders, providing them with tools for advocacy**
6. **Develop and validate best practices for assessing the built environment**



- 6-member team
- Daily community assessment
 - 57 variables –
 - Started with literature review
 - Community leader input
 - Variables representing community concerns
 - Community assets
 - Religious institutions
 - Parks
 - Community centers
- GPS-enabled database used to record observations



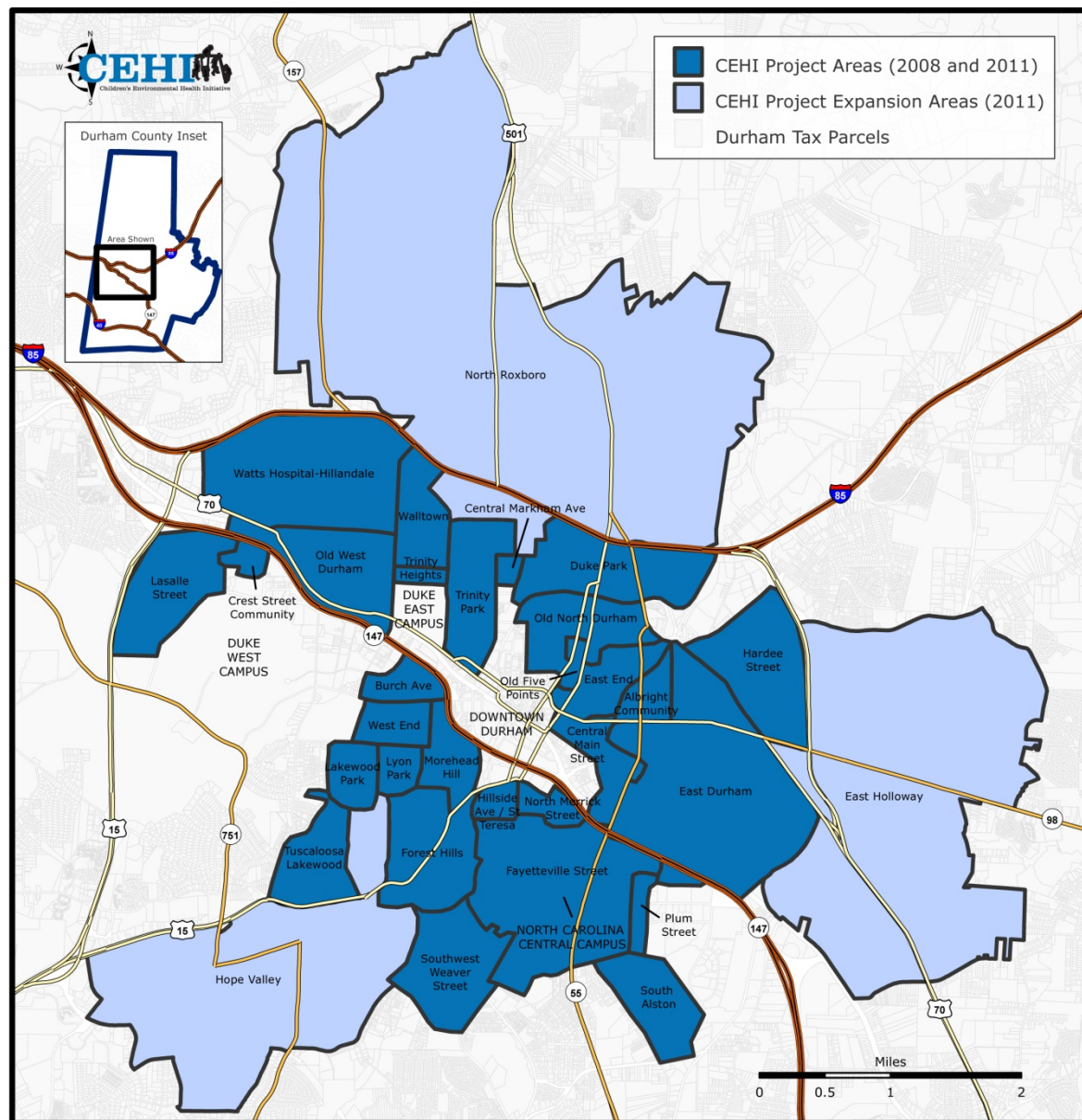
CAP Study Area – 2008, 2011

2008 (dark blue)

- 17,000 tax parcels
- 29 neighborhoods

2011 (both blues)

- 30,700 parcels
- 2008 area + additional contiguous communities
- Longitudinal data for 17,000 parcels (dark blue area)



Descriptors

- Property type
 - Residential
 - Commercial
 - Community
 - Government
 - Faith
 - Empty lot
 - Parking lot
- Property status
 - Occupied
 - Unoccupied

Conditions

- Broken windows
- Boarded doors
- Holes in walls
- Roof damage
- Residential front entry type
- Residential front entry damage
- Peeling paint and area
- Fire damage
- Condemned
- Eviction notice
- Padlocked
- Residential driveway
- Residential cars on lawn
- Residential greenery

- Residential garden
- Residential no grass
- Fencing: damage, material, area enclosed
- Security bars
- Barbed wire
- No trespassing sign
- Beware of dog sign
- Security sign
- For sale sign
- For rent sign
- Dog
- Window AC unit
- Home repair
- New home construction

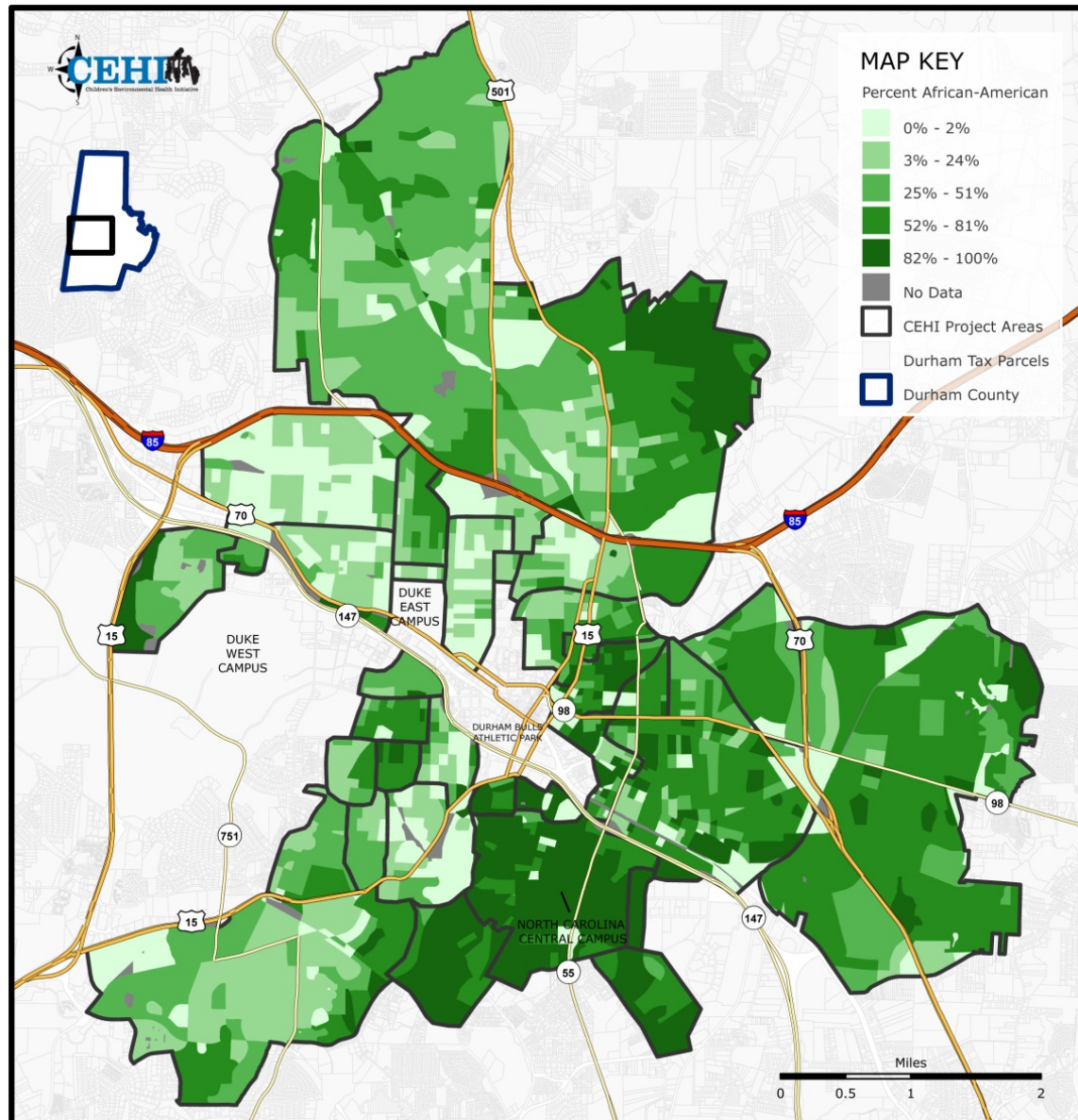
Nuisances

- Standing water
- Litter
- Garbage
- Broken glass
- Discarded furniture
- Discarded appliances
- Discarded tires
- Inoperable vehicle
- High weeds/grass
- Graffiti
- Other nuisance

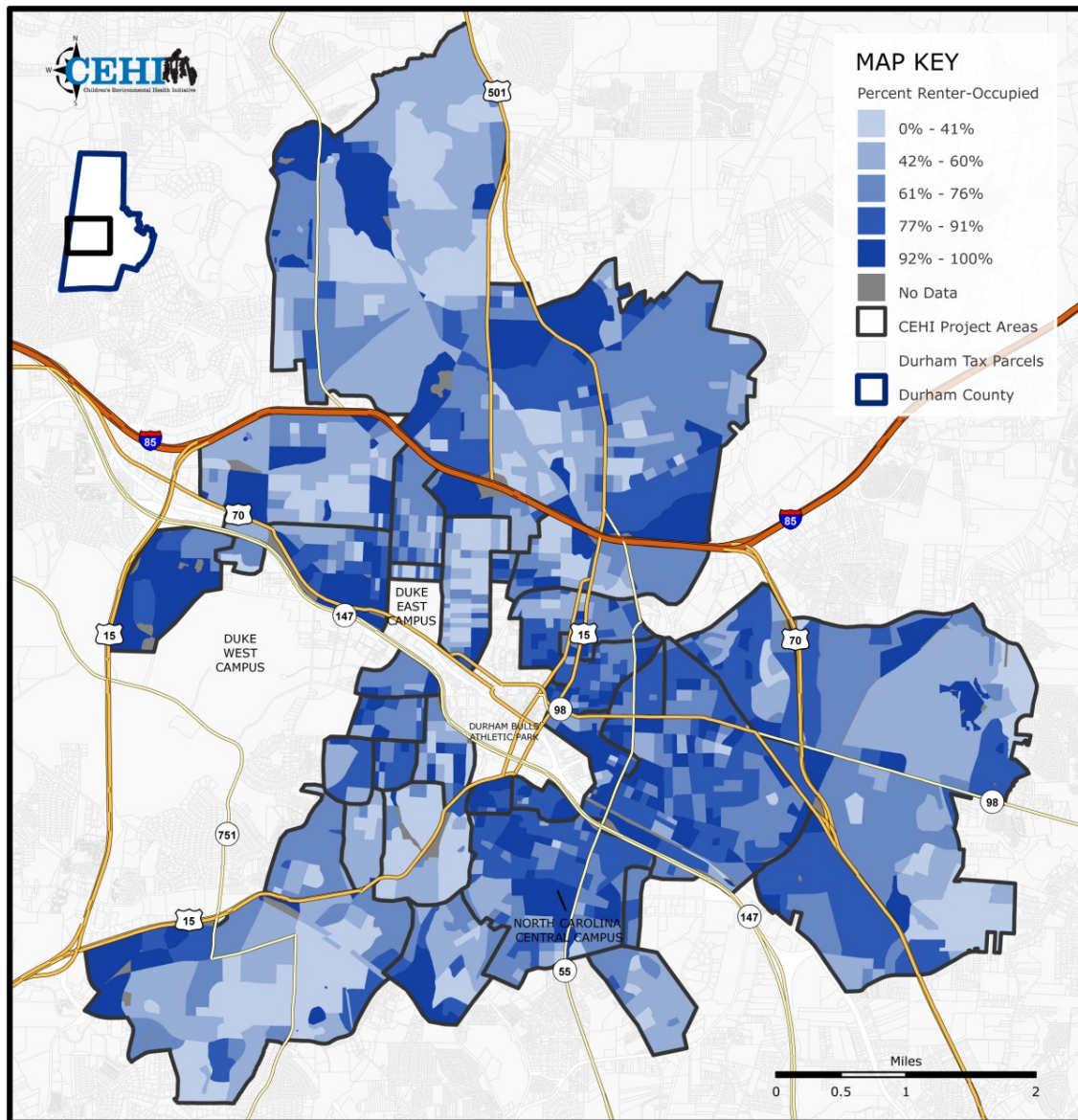
Neighborhood Health Indices

Structural Damage	Public Nuisances	Property Disorder	Security Measures	Amenities/Resources	Tenure	Vacancy	Crime
•Boarded door	•Cars on lawn	•Composite measure of Structural Damage and Nuisances on Private Property	•Security bars	•Schools	•Owner-occupied	•Vacant commercial	•Robberies
•Holes in walls	•No grass		•Barbed wire	•Libraries	•Renter-occupied	•Vacant residential	•Homicide
•Roof damage	•Standing water		•Sign: no trespassing	•Faith institutions		•Vacant empty lot	•Assault
•Chimney damage	•Litter		•Sign: beware of dog	•Day care centers			
•Foundation damage	•Garbage		•Security sign	•Health care providers			
•Entry damage	•Broken glass			•Grocery stores			
•Door damage	•Discarded furniture			•Parks			
•Peeling paint	•Discarded appliances			•Community Centers			
•Fire damage	•Discarded tires						
•Condemned	•Inoperable vehicles						
• Broken Windows	•High grass or weeds						

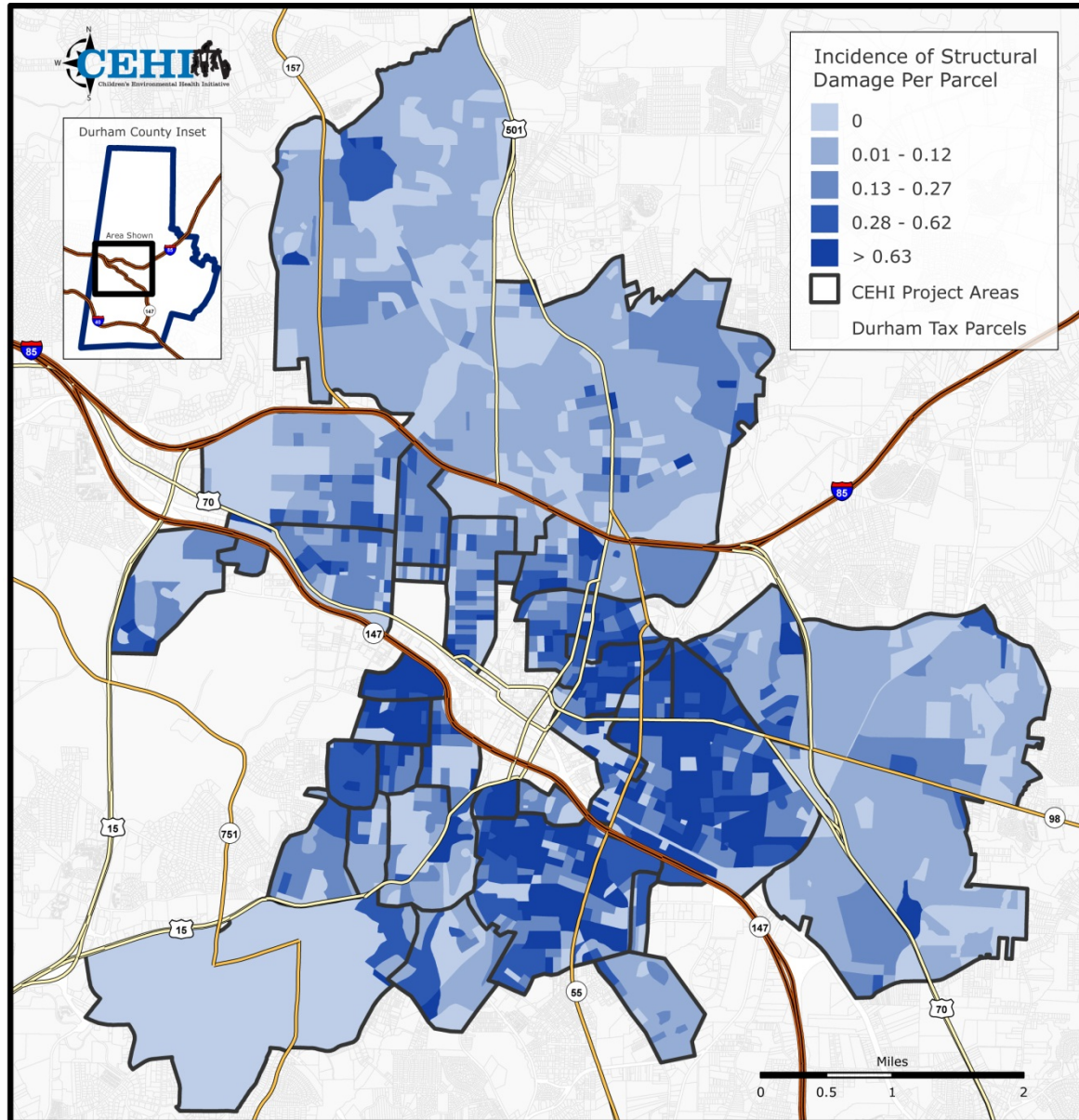
Percent African American



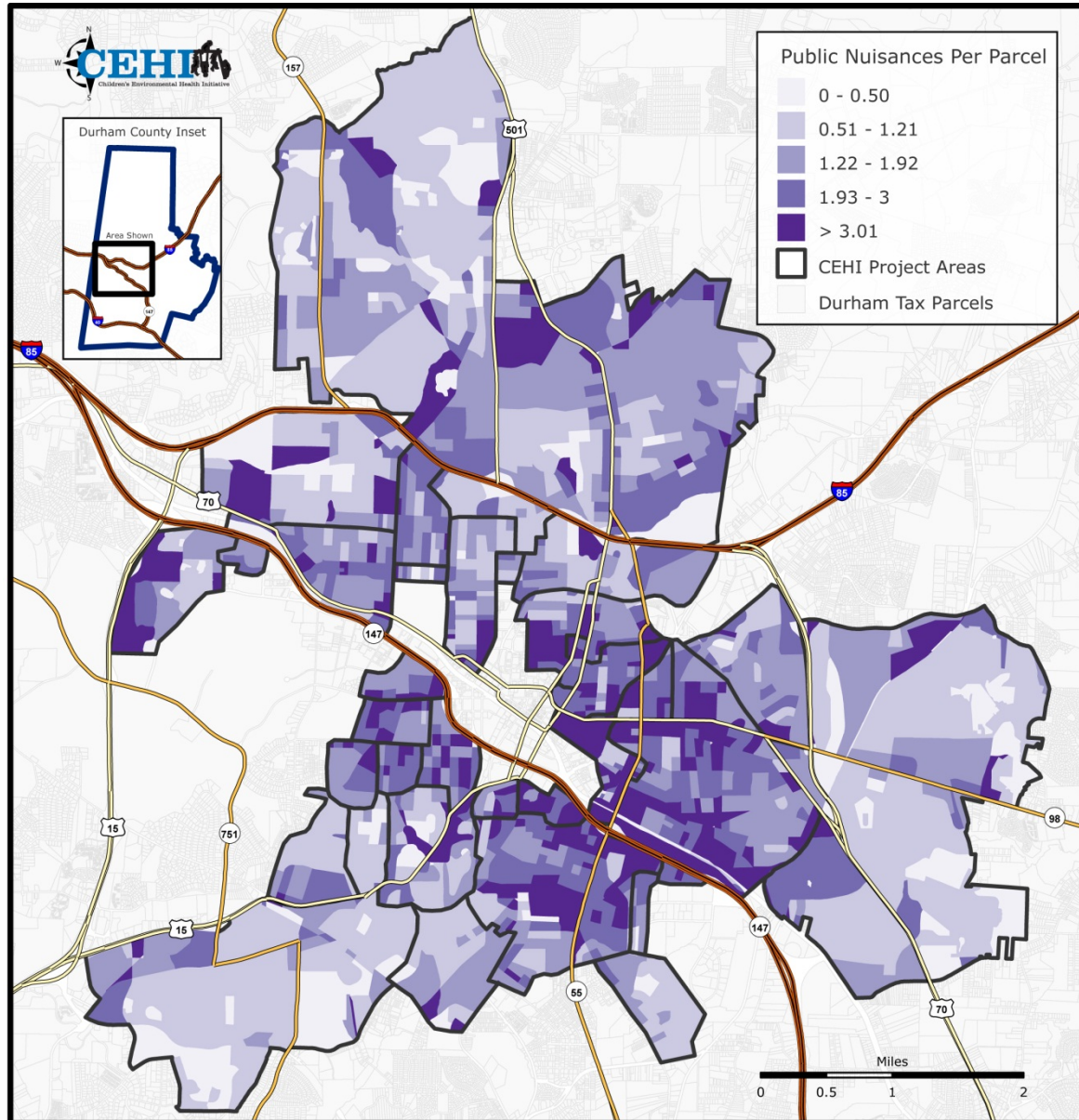
Percent Renter-Occupied



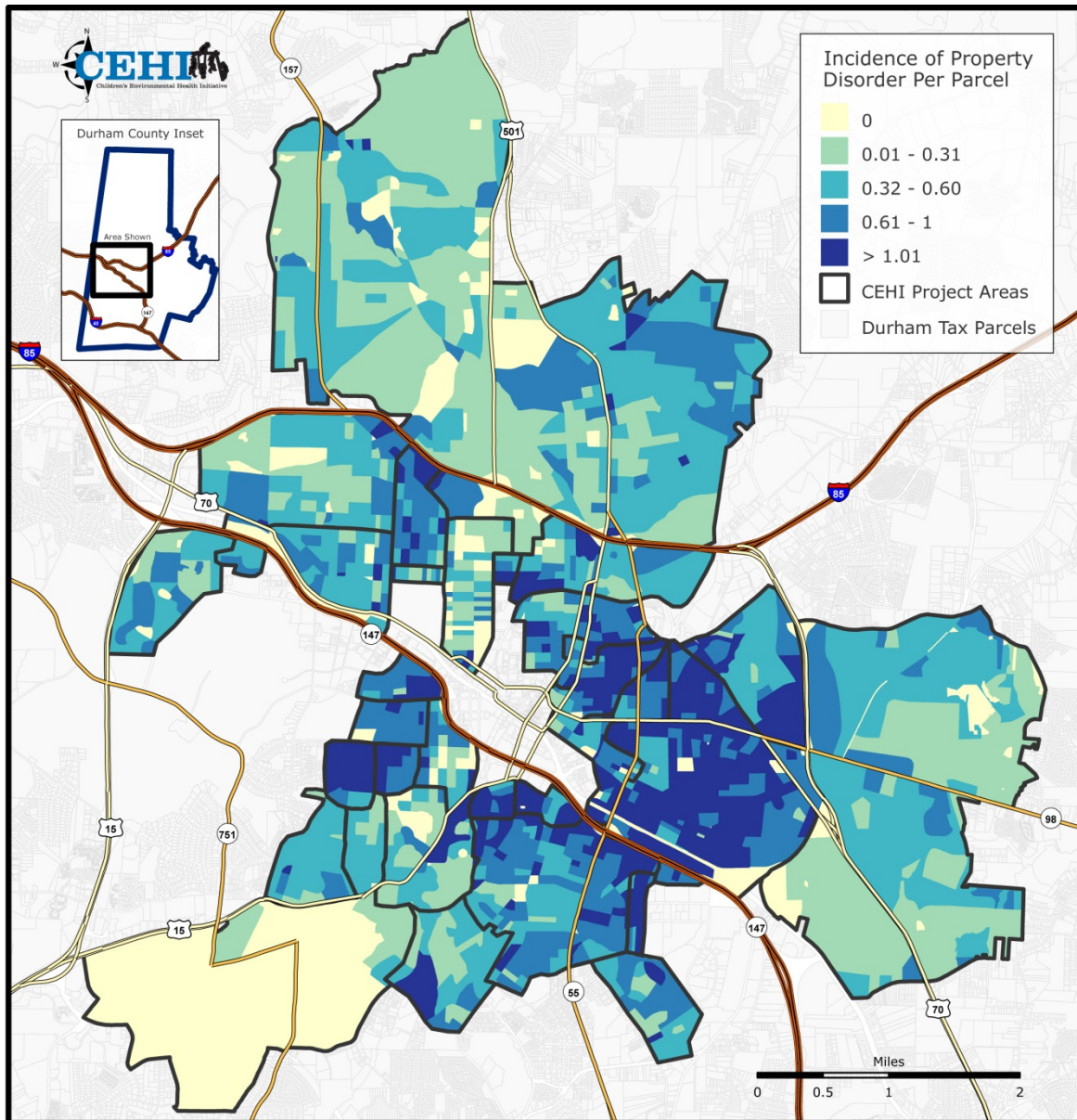
Structural Damage



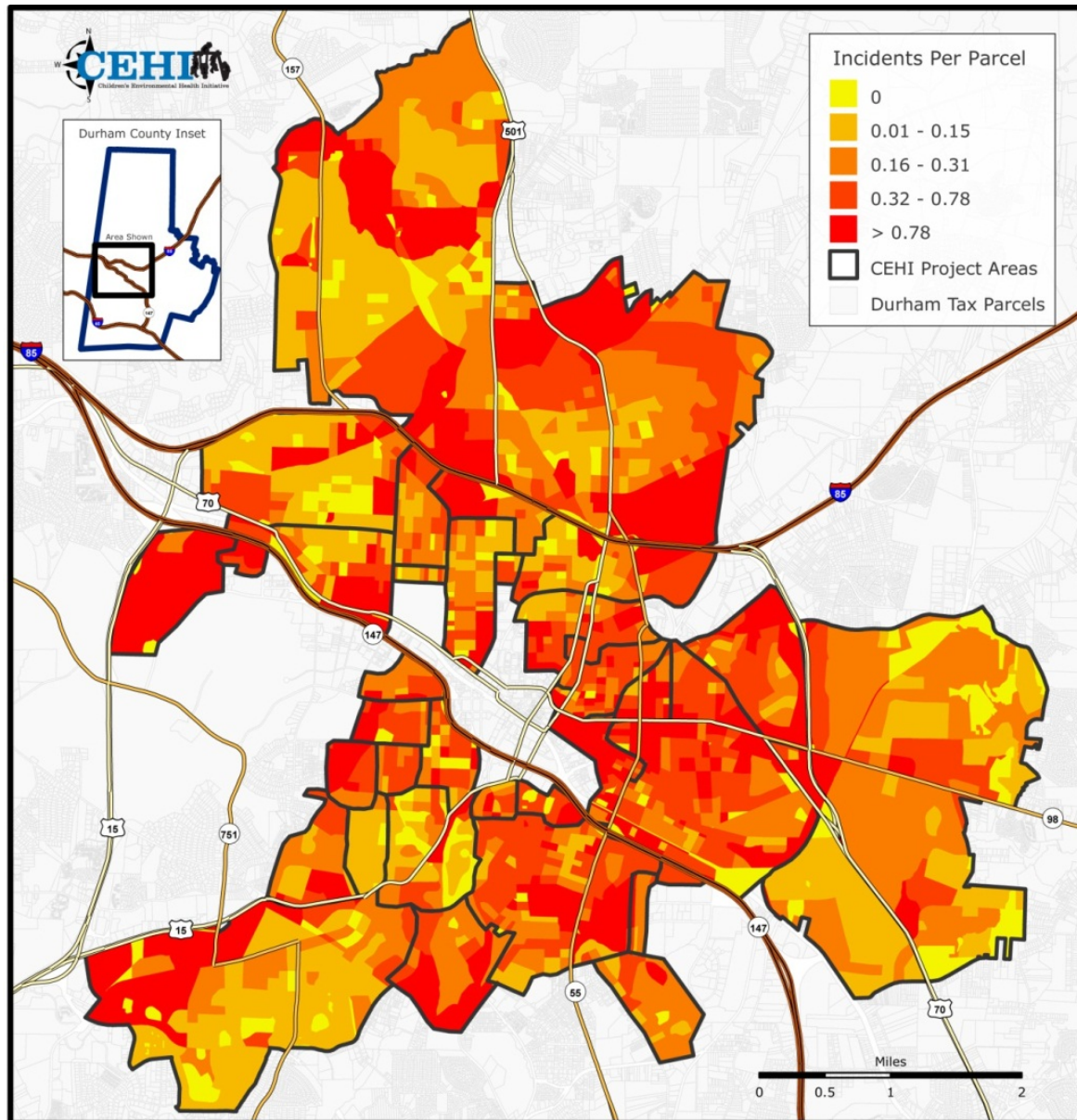
Nuisances



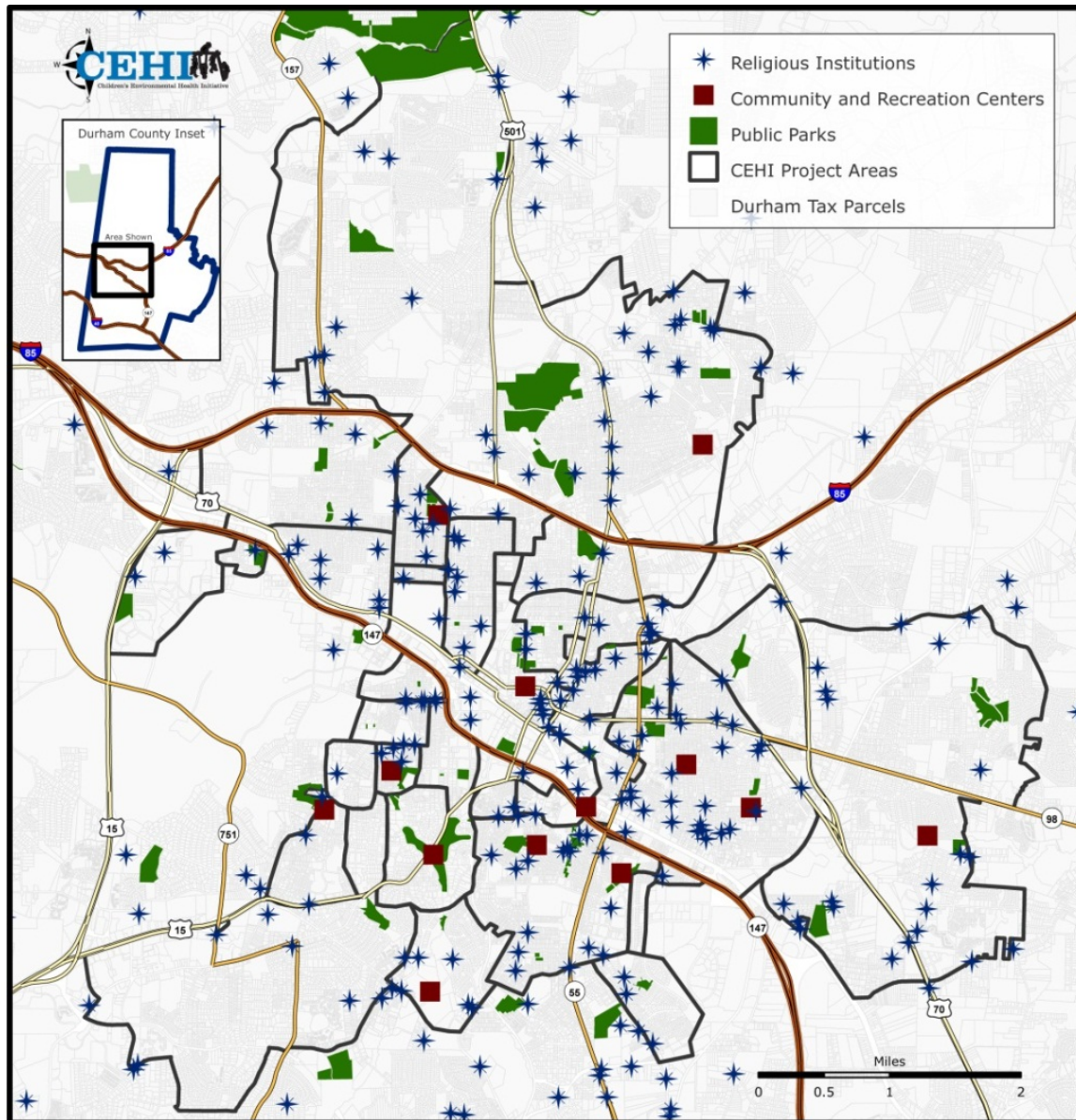
Property Disorder



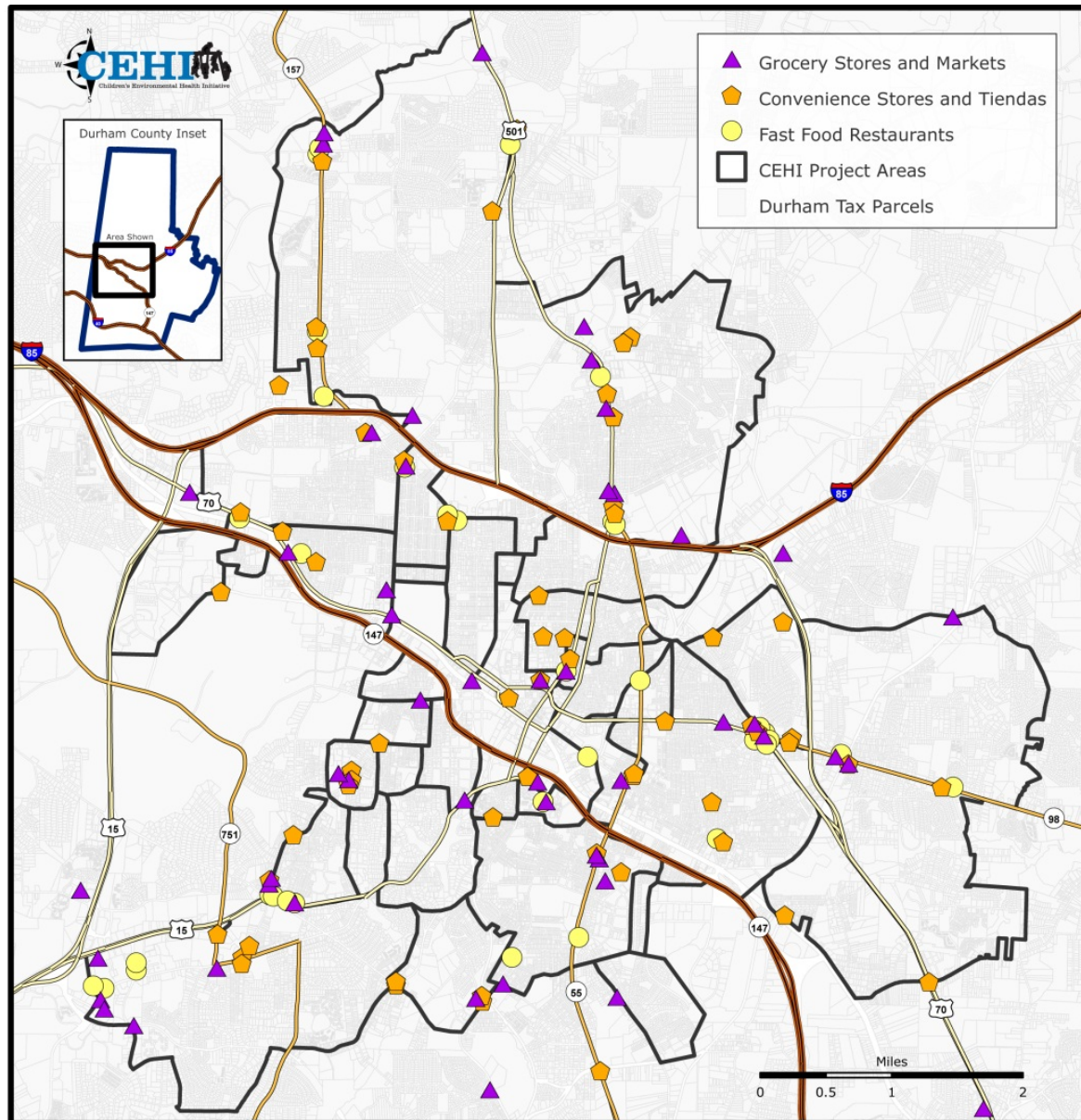
Crime



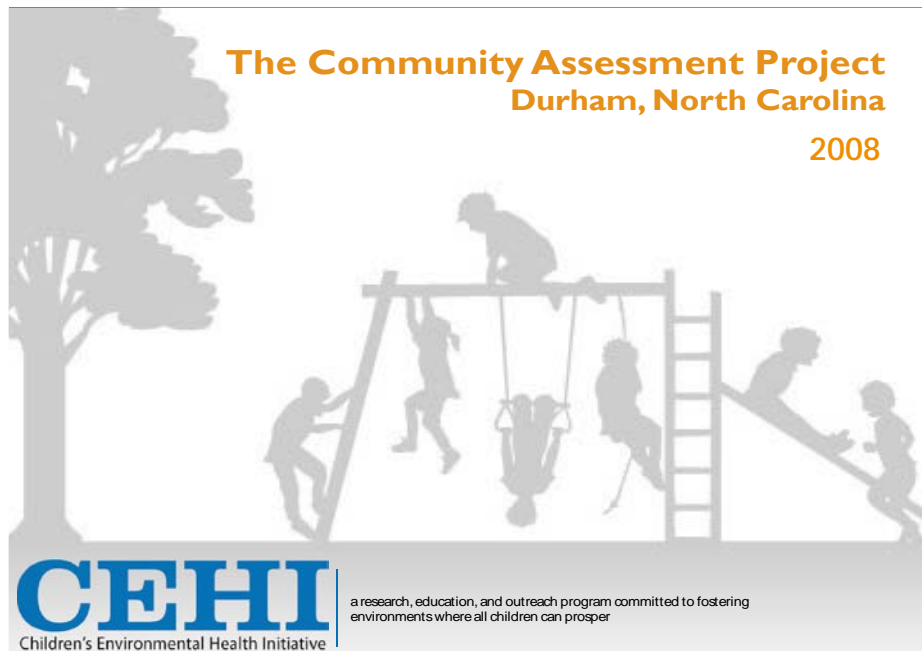
Community Resources



Community Resources

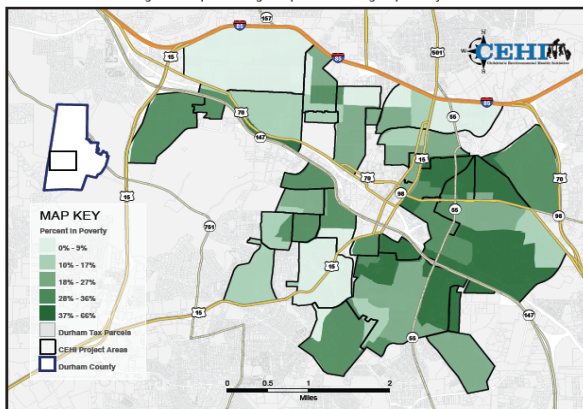


- Report to the community – 2008 with 2012 report soon to be issued
- Distributed to 800 key community stakeholders
- Community meetings



Demographics: Demographic data describe populations and supplement the Community Assessment Project. Comparing demographic information such as income, highest level of education achieved, age, gender, and race to the built environment data collected in the Community Assessment Project may reveal trends that identify vulnerable or susceptible populations.

Percent of the population living in poverty: The poverty line is defined by the US Census Bureau and is dependent on the total number of people in the household and the number of children. **Figure 12** shows the percentage of the population for each Census block group (unavailable at the block level) living below the poverty line, based on US Census 2000 data (latest available); the darker the color, the higher the percentage of persons living in poverty.



- Publicly available interactive web application
- Data sharing with Office of Neighborhood Improvement Services (and others)

Collaboration with community partners builds understanding and relationships at all stages.

- Tool development
- Data collection
- Dissemination of results - power of the data to inform local programs, initiatives, and strategies

The community provides contextual meaning for and policy application of the data.

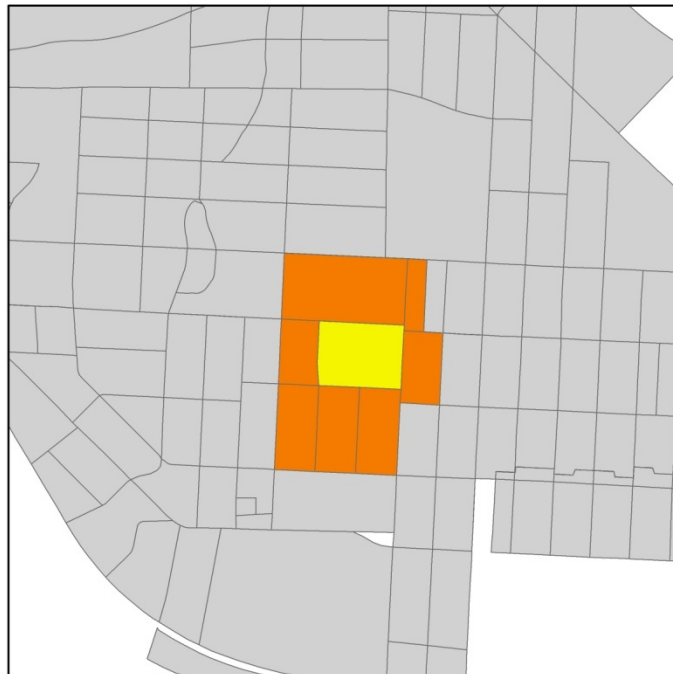


Acknowledgements

- **US Environmental Protection Agency (RD 83329301)**
- **Durham community members**
- **CEHI CAP field team led by John Post**
- **CEHI GIS analysts**

Primary Adjacency

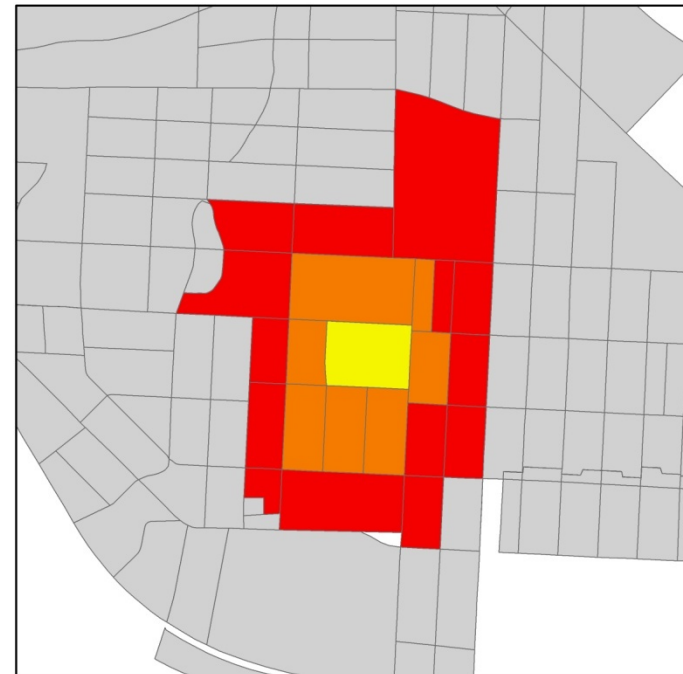
Blocks primarily adjacent to block X are all blocks sharing a line segment or vertex with block X.



0 0.1 0.2 0.4 0.6 0.8 Miles

Primary + Secondary Adjacency

Blocks secondarily adjacent to block X are all blocks sharing a line segment or vertex with all blocks primarily adjacent to block X.



Manmade physical features and conditions that define the local environment:

- **Housing**
- **Commercial buildings**
- **Distribution of resources**
- **Infrastructure**
- **Urban design**



Percent in Poverty

